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### **REMARKS**

Claims 1 - 17 are currently pending in the application. By this amendment, claims 1, 9 and 17 are amended for the Examiner's consideration, and should now be in *prima facie* condition for allowance. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each.

It is noted with appreciation that the amendments to claims 1, 9 -17 filed on 09/21/2004 have been accepted and entered by the Examiner and that the objection of claims 1 - 16 have been withdrawn in view of the amendment. It is also noted that the rejection of claims 1 - 7 and 9 - 15 under 35 U.S.C. 103 (a) as being unpatentable over Hsing et al. in view of Kenton have been withdrawn in view of the amendment. In addition, the rejection of claims of 8 and 16 under 35 U.S.C. 103 (a) over Hsing in view of Kenton and further in view of Carter have been withdrawn.

Claims 1, 9 and 17 have been amended to specifically reference the two different tables used to define the translation rules and data loop grouping options. The static translation table is the user-defined table that is created as the general rule set for the document type. The dynamic translation table is automatically created to define the translation paths specifically for the target document. The dynamic translation table may include special attributes that have been added to address the ambiguities of the document. Once the structural document has been translated, the dynamic translation tree is used to remove those attributes that were added. The subject invention discusses these two tables and their role within the translation of the structural document throughout the specification. For example, page 4, lines 11 - 22 discusses the static translation table that has translation rules as source path and target path data and the dynamic translation table that has the special attributes to resolve ambiguities.

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Claims 1 - 7, 9 - 15 and 17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Hsing et al. US 2002/0023113 A1, priority filed on 08/2000 in view of Gajraj, US 2002/0002566 A1, filed 07/16/1998. This rejection is traversed

The Examiner has acknowledged that Hsing US 2002/0023113 A1 does not provide the features of the subject invention. Specifically, as stated by the Examiner, Hsing, "... does not explicitly disclose identifying ambiguities within a structural document to include data loops that are not marked as loops; data loops grouping options defined by a user; and generating a modified hierarchical tree structure in accordance with the grouping options." The Examiner contends that Gajraj, US 2002/0002566 A1 addresses these features. This is not correct. Gajraj, US 2002/0002566 A1 does not address ambiguities associated with data loops, nor does Gajraj, US 2002/0002566 A1 generate a modified hierarchical tree structure according to the grouping options described by the features specified in claim 1.

Gajraj's approach uses either one static mapping table or two static mapping tables. None of these tables are used for the purpose of resolving ambiguities. In the present invention, two tables (one static and one dynamic table created during runtime) are used where both tables participate in ambiguity removing in the hierarchical tree building process.

Gajraj's approach results in ambiguities due to multiple matches occurring, and the algorithm does not know how to proceed. Gajraj's approach has to stop during runtime and asks for user inputs. In contrast, the inventive approach has ambiguities due to the two data grouping options in the hierarchical tree building process. In the inventive approach, users are allowed to enter options before runtime, hence the runtime transformation process is not stopped for resolving ambiguities.

Furthermore, Gajraj does not recognize or distinguish data loops. The ambiguities resolved by Gajraj would include format codes (e.g., a specific font, etc.) that the target document type does not support. These ambiguities are resolved by the user inputted conversion rules specified in the mapping table either prior to the

conversion or during the conversion. The subject invention recognizes the content of the data fields and can resolve ambiguities such as multiple occurrences of the same data and/or the same attributes. For example, when converting data from a customer data base into an accounts receivable database, the address may be listed for the customer by the customers name and may also be listed in another area of the document by the company name. The ambiguity would need to be resolved such that there was only one customer and one address and therefore only one invoice would be generated. These subject invention may insert certain attributes while generating the modified hierarchical tree structure. The dynamic translation tables are then used to remove any added attributes prior to the final output.

Finally, the identification of ambiguities and the translation rules and data loop grouping options are all relative to the generation and use of hierarchical tree structure. None of the references cited by the Examiner generate or use a hierarchical tree structure for performing the translation.

With respect to claim 1, the feature of the claim is to generate a hierarchical tree structure for each document to be translated. The paragraphs referenced by the Examiner do not speak to generating a hierarchical tree structure. Instead, Gajraj is using a mapping tool in the form of a table to identify the location of elements from the original document to the location in a destination document type. The fact that there is a hierarchical structure to the rules in the tables for a specific document type definition (DTD) is not the same as generating a hierarchical tree structure for each document that is being translated. Therefore, the features of this claim are not anticipated or made obvious by Gajraj, and no combination of Hsing and Gajraj would make the claims obvious since neither reference includes the features noted above.

All claims which depend from claim 1, as well as independent 9 (which is a system claim analogous to claim 1, would not be obvious over a combination of Hsing and Gajraj for the same reasons.

In addition, with particular respect to claim 2, Gajraj, as discussed above does not generate a hierarchical tree structure but rather uses mapping tables. The process of translating the document using the method of the subject invention is significantly different from the process of converting the document as described by Gajraj. Thus, Gajraj cannot group together child nodes and branches as it does not form the tree structure. Therefore, the features of this claim are not anticipated or made obvious by Gajraj.

With respect to claim 3, the tag information of the subject invention is relative to the data within the document. As seen in Figures 1 and 2 of the subject invention, the tags and sub-tags are relative to the actual data types. That is N1 is a name element while Gajraj simply numbers the attributes as A1, A2, A3... as shown in Figure 15. These Ids are not tags or sub-tags but just sequential number scheme to help structure the mapping tables. They are not nodes or tags as in the hierarchical tree structure of the subject invention. Therefore, the features of this claim are not anticipated or made obvious by Gajraj.

With respect to claim 4 -7, these claims all depend from claim 1 and as such, are unique due to the intermediate tree structure. Neither Hsing nor Gajraj discuss the use of an intermediate tree which assigns tags for the translation and then removes the tags for the final tree structure as does the subject invention. Thus, the concept of sub-tree tags in claim 4 is relative to the intermediate tree feature used to address the looping ambiguity of claim 1 and the two-columned table used to define the rules for sorting is also relative to the intermediate tree structure. Claim 5 discusses the Document Object Model (DOM) relative to the intermediate tree structure. Claim 6 specifically cites the use of the interim tree structure which is not a feature of either Hsing or Gajraj. Thus claims 4 through 7 are not obvious over Hsing and Kenton. Therefore, the features of this claim are not anticipated or made obvious by Gajraj.

As for claims 9 - 15, as noted by the Examiner, these claims are relative to the system for performing the method of claims 1 - 7 and 8, respectively. As such, these

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claims are also unique for the same arguments as discussed above. Therefore, the features of this claim are not made obvious by any combination of Hsing and Gajraj.

Claims 8 and 16 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Hsing in view of Gajraj as applied to claim 1 and in further view of Carter US 5,878,419.


Carter US 5,878,419 does not generate a hierarchical tree structure. The identification of the loops with or without tags is relative to claim 1 and claim 9 upon which claims 8 and 16 depend, respectively. As discussed above, neither Hsing, Gajraj nor Carter, independently or in combination generate the hierarchical tree structure of the subject invention. Therefore, the features of this claim are not anticipated or made obvious by Carter.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1 - 17 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: Mike@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account 50-0510 (IBM-Yorktown).

Respectfully submitted,



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